

U.S.S.N.: not yet assigned
Applicant: Prentice et al.

In the claims:

1-36. (canceled)

37. (new) A fluid dispensing pump comprising:

a feed screw having a helical cavity defined between a major diameter and a minor diameter of a thread of the feed screw;

a cartridge body having a feed cavity in communication with the feed screw for introduction of dispensing fluids into the helical cavity; and

a motor having indexed rotational positions for controlling rotational position of the feed screw during a dispensing operation.

38. (new) The pump of claim 37 wherein the cartridge body comprises a first outer body, and a second inner body, the feed cavity being formed in the inner body.

39. (new) The pump of claim 37 further comprising a transmission coupled between the motor and feed screw for gearing the feed screw relative to the motor.

40. (new) The pump of claim 37 further comprising a notch on an outer surface of the cartridge body adapted to mate with a pin mounted to a pump body for securing the cartridge body to the pump body.

41. (new) The pump of claim 40 wherein the notch comprises a groove for allowing translation of the cartridge body relative to the pump body over the length of the groove.

42. (new) The pump of claim 40 wherein the notch comprises a hole for fixing the longitudinal position of the cartridge body relative to the pump body.

43. (new) A fluid dispensing pump comprising:

a feed screw having a helical cavity defined between a major diameter and a minor diameter of a thread of the feed screw;

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a cartridge body having a feed port in communication with the feed screw for introduction of dispensing fluids into the helical cavity; and

a closed-loop servo motor having indexed rotational positions for controlling rotational position of the feed screw during a dispensing operation.

44. (new) The pump of claim 43 wherein the cartridge body comprises a first outer body, and a second inner body, the feed port further comprising a feed cavity that is formed in the inner body.

45. (new) The pump of claim 43 further comprising a transmission coupled between the motor and feed screw for gearing the feed screw relative to the motor.

46. (new) The pump of claim 43 further comprising a notch on an outer surface of the cartridge body adapted to mate with a pin mounted to a pump body for securing the cartridge body to the pump body.

47. (new) The pump of claim 46 wherein the notch comprises a groove for allowing translation of the cartridge body relative to the pump body over the length of the groove.

48. (new) The pump of claim 46 wherein the notch comprises a hole for fixing the longitudinal position of the cartridge body relative to the pump body.